

JSC prepares for Savings Bond campaign kicks off

JSC is ready to kick off its annual U.S. Savings Bond Campaign on Wednesday. "I'm pleased to announce the beginning of the 1996 U.S. Savings Bond Campaign at JSC and encourage your participation in this worthwhile effort," said JSC Director George Abbey. "The purchase of savings bonds is important both to the well-being of the nation's economy and to the personal savings programs of individuals."

Campaign coordinator Teresa Sullivan said the purchase of savings bonds is a transaction where both the buyer and seller profit.

Interest rates are market based and are adjusted every six months, climbing as market rates increase. The current short-term rate—for bonds held five years—is 4.75 percent which purchasers begin earning immediately. The long-term rate applies to bonds held longer than five years through original maturity at 17 years. The present long-term rate is 5.16 percent. The program provides numerous other

Take Stock in America



Savings Bonds is an investment in tomorrow," Abbey said.

advantages, she said. Interest earned, for example, is not subject to state or local taxes, and federal tax liability can be deferred until the bonds are cashed. In addition, when bonds are redeemed for the purpose of financing higher education interest earned under some circumstances is tax free.

"The purchase of U.S. Savings Bonds is an investment in tomorrow," Abbey said.

The campaign will run through May 31, during which time employees will receive more information about the program. NASA has a goal to achieve a participation level of 40 percent and sign up—10 percent of our employees as new savers. NASA also hopes to have 20 percent of the current bond buyers increase their existing allotments. Bonds are available in \$100, \$250, \$500 and \$1,000 increments.

For more information, contact your directorate campaign coordinator or Teresa Sullivan at x38970.

Juneteenth picnic set at Gilruth

The JSC Black Cultural Association will host its "Annual Juneteenth Scholarship Picnic" from 11 a.m.-8 p.m., June 21, 1996, at the Gilruth Center.

This event is a joint venture between the BCA and the Black United Fund of Texas and will feature a softball tournament between BCA and BUF-TX. In addition, the Ron McNair Scholarship Award will be presented.

Adult tickets cost \$10, and children under 12 years cost \$5. Ticket price includes a barbecue dinner, dessert, drinks and entertainment. Music will be provided by a disc jockey at picnic goes also will have the opportunity to test their skills at card games and dominos.

Tickets are now on sale until June 12. For ticket information, call Judith Elam at x34441.

Travel Fair reminder

The Employee Activities Association is sponsoring a Travel Fair from 4-6:30 p.m. Tuesday at the Gilruth Center.

Tickets for door prizes are available at the Bldg 11 Exchange Store. For more information, call x35352.



JSC Photo By Benny Benavides

ENVIRONMENTAL INSPECTION—Lockheed Scientist Jack Warren surveys the meteoroid and space debris impact in a thermal blanket from the Russian Mir Space Station. The blanket covered an experiment monitoring cosmic rays, and is now performing double duty as a sensor of the particulate environment in low-Earth orbit. Studies in the Facility for Optical Inspection of Large Surfaces, in Bldg. 31, are revealing the extent of hazards posed to spacecraft and suited astronauts by particles which travel at velocities in excess of 7 km per second.

Volunteers needed for American Heritage Week

This year, JSC will expand American Heritage Day by celebrating cultural diversity the week of June 10-14 and the American Heritage Week committee is looking for additional volunteers to make the event memorable.

This year's theme, "A Patchwork of Cultures and Diversity," will be highlighted daily with entertainment, exhibits and displays in the Bldg. 3 cafeteria. The grand finale of the week's activities will be at 3 p.m. June 14, with a variety of performers and food vendors representing many ethnic cultures.

"American Heritage Week will spotlight cultures and diversity that are present in the JSC workplace," said Estella Hernandez Gillette, director of the Equal Opportunity Program Office. "This celebration is an effort to create a greater appreciation for our cultural diversity yet demonstrate that these diversities add strength to the JSC team."

In order to accomplish such an event, volunteers are needed for a variety of tasks. Volunteers are needed to serve on the planning subcommittees, as well as to participate in the activities including food pick-up from local eateries, food servers, "town criers" to help announce and publicize daily events, greeters and clean-up. Employees interested in helping in any of these areas, can call Bridget Broussard-Guidry at x34834.

In addition, employee exhibits and displays are needed. These exhibits/displays are to depict employees' cultural diversity of hobbies, creations, collections and other interests. The following categories will be highlighted during the week—art work (painting, sculpting, modeling); needlework (quilting, embroidering, dress making); collections (antiques, collectibles, items of interest); hobbies (crafting, creating, woodworking); and vintage autos (restored, in restoration, original condition). Interested exhibitors need to contact Elaine Kemp at x30556. Both JSC civil servants and contractor employees are welcome to participate. General questions can be answered by calling x30601.

JSC selects fellowship, institute science participants

Two JSC employees have been selected to participate in JSC's Fellowship Program and one employee will attend the International Space University in Austria this summer.

This year's Fellowship Program participants are James Masciarelli of the Engineering Technology Office, who will attend the University of Houston working towards a master science degree in mechanical engineering, and Tim Straube of the Navigation Control and Aeronautics Division, who will attend the University of Colorado and work toward a doctorate in aerospace engineering sciences.

The JSC Fellowship Program provides for a select number of employees the opportunity to attend graduate school on leave with pay basis for one continuous year. The criteria for this competitive program includes applicability of the chosen area of study and its effectiveness in contributing to the achievement of JSC's mission and goals, a brief statement of academic purpose from the applicant, academic record of the applicant, written recommendation from the division chief and activity level in the employee's office and the employee's own work load.

Cuong Nguyen of the Shuttle Safety and Mission Assurance Division was selected to attend the International Space University in Vienna, Austria, this summer.

Nguyen will attend the 10-week program hosted by the Austrian Society for Aerospace Medicine. The program is a multidisciplinary, multinational space education and research program. Its curriculum will include systems architecture and mission design; business and management; engineering; life sciences; policy and law; resources, robotics, and manufacturing; and satellite applications.

JSC sponsorship includes payment of program fees and room and board through the Human Resources Development Branch, and round-trip travel expenses and miscellaneous per diem through the employee's directorate.

Nguyen was nominated and selected based on his career level, high potential to assume future leadership roles, outstanding record of professional contributions, proven ability to work well in teams and deal effectively with a wide range of people and his knowledge of a foreign language.

Lucid, crew mates busy preparing Priroda for Earth observations

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was a first with the new Mir configuration and the crew reported everything went smoothly.

In readying the Priroda module for science activities, Lucid, Onufrienko and Usachev first removed 168 automotive-sized batteries. These batteries were used to provide Priroda with electricity while en route to Mir. The batteries were wrapped in plastic bags and transferred to the Progress resupply vehicle.

The Priroda battery wrapping activity was scheduled to take six days but the crew accomplished it in less than two days. The crew also connected Priroda to the Mir's power system and has been troubleshooting a Priroda power system problem detected during rendezvous.

As part of her Earth observations work, Lucid took photographs of the fires burning out of control in Mongolia. Lucid, a veteran of four previous space flights, reported that

she had never before seen such large fires from space.

The Ambient Diffusion Controlled Protein Crystal Growth experiment and the Protein Crystal Growth investigations are proceeding nominally. The crew activated the Space Acceleration Measurement System in support of the PCG Dewar experiment on April 26 for 48 hours. SAMS measures the slightest Mir movements. This data collection opportunity captured both the Priroda dock-

ing and repositioning. The information will assist scientists in correlating any changes noticed in their experiment data postflight.

At the cosmonaut training center in Star City, astronaut John Blaha received training on the active dosimetry experiment that he will be performing on his mission. Blaha will arrive on Mir in August to take over U.S. science work from Lucid. Astronauts Jerry Linenger and Mike Foale are in Germany, where they joined

the Mir 23 crew for training in preparation for the upcoming German-Mir '96 mission.

Astronaut Jim Voss participated in language and physical training before leaving for Houston and two weeks of vacation.

Mir 21 Cosmonauts Onufrienko and Usachev today marked their 79th day in space and 77th day aboard Mir since being launched aboard a Soyuz rocket February 21. Lucid has been on Mir for 48 days.

Columbia moves to VAB next week

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launch on STS-78, the Life and Microgravity Sciences mission. Currently in KSC's Bay 2 processing hangar, the Spacelab transfer tunnel was installed in the cargo bay this week, and the payload bay doors are scheduled to be closed for the final time on May 17. *Columbia* is planned to be moved to the Vehicle Assembly Bldg. for mating with the STS-78 solid rockets and fuel tank on May 23.

Elsewhere, *Atlantis* is in KSC's Bay 1 hangar being readied for a late summer launch on STS-79, the fourth Mir-shuttle docking mission.

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GANE to test critical space station component

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"STS-77 Mission Specialists Mario Runco and Andy Thomas will operate the experiment," said Saunders-Roberts. "When GANE returns to Earth, then the data gathered during the flight will be analyzed."

The ISS program has determined that GPS attitude measurement is the number one risk mitigation experiment during the Phase I program. The GANE experiment will measure GPS receiver/processor and antenna assembly attitude determination, navigation and overall performance. In particular, the capability of potential candidate hardware and software will be evaluated.

GPS is a Department of Defense system that allows world-wide navigation. GPS is becoming the world standard navigation system that allows position determination within 100 meters or less. Pilots, boaters, hikers, and just about anyone can use GPS for accurate real-time position and velocity determination.

One unique aspect of GPS is its capability for determining the attitude of a vehicle using three or four antennas by measuring the GPS carrier phase through each antenna. This technique has been successfully tested on surface vehicles and aircraft, but it has not been tested in space before. GANE will accomplish

its experiment objectives by operating the GPS system through four on-orbit test sequences. Prior to and after the four data collection sessions, the orbiter will perform star alignment maneuvers to align the Inertial Reference Unit to the orbiter's Inertial Measurement Unit.

GANE is one of four experiments that will be carried aboard the PAMS-STU spacecraft. The package is called the Technology Experiments for Advancing Mission in Space, or TEAMS. The experiments are being flown together at reduced cost, with the Hitchhiker carrier providing electrical power, signals, and "downlink" data interfaces.